UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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KHAN, SUHAIL

ART UNIT	PAPER NUMBER
2686	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/710,379	KATZ, DANIEL A.
	Examiner	Art Unit	
	Suhail Khan	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 July 2004</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☒ Claim(s) *10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>06 July 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claim 10 objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.

2.   Regarding claims 1 and 18-20, note the use of protocols such as "IEEE 802.11", protocols and standards change over time, hence, it is inappropriate to have the scope of a claim change with time. Since organizations implementing standards meet regularly and have the authority to modify standards, any connection a claim may have to these standards may vary scope over time. The other aspect arising from this is enablement. If the standard changes, the disclosure may no longer support the limitation. If the scope of the invention sought to be patented cannot be determined from the language of the claims, a second paragraph rejection is appropriate (In re Wiggins, 179 USPQ 421).

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4.   Claims 28-31 rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

Claims 28-31 rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6.   Claims 1-9, 11-13, 15 and 17-27 rejected under 35 U.S.C. 102(e) as being anticipated by

U.S. Patent No. 6934540 to Twitchell.

Referring to **claim 1**, Twitchell discloses a system for determining the geographical

location (col 11, lines 30-35, geographic location) of roaming objects (col 2, lines 45-54, person,

vehicle, etc that may be moving), comprising: a) a communication network (col 2, lines 33-37,

network), consisting of at least a plurality of communication devices (col 2, lines 35-37,

transceivers), each of which having wireless (col 6, lines 1-4, wireless transceiver) and/or

wireline communication capability with other communication devices over said communication

network (col 11, lines 3-7, wired network), wherein at least one of said communication devices is

mobile (col 6, lines 1-4, wireless transceiver), and of establishing wireless communication with

other wireless devices in the vicinity of said communication device (col 2, lines 33-37, data

communication network among transceivers), said communication network being capable of

obtaining the geographical location of said communication devices and transmitting data

representing said geographical location to a destination, over said communication network (col

11, lines 30-35, geographic location, transmitting data to server computer via mobile phone

network); b) a wireless tag, attached to each of said roaming objects (col 6, lines 1-5, wireless

tag), being a wireless device (col 6, lines 1-5, wireless transceiver), in which a unique data is

stored (col 6, lines 22-25, unique identification), said tag being capable of communicating with

one or more communication devices and transmitting said unique data to said destination through

said communication device(s) and over said communication network (col 6, lines 1-5, reading

the wireless tag using another wireless transceiver; col 2, lines 33-37, data communication

network among transceivers); and c) a control center being, or linked to, said destination, for

receiving said unique data from said tag and for using said unique data and the location of the

communication device, through which said unique data is transmitted, for determining/displaying

or forwarding the geographical location of said tag (col 6, lines 1-5, reading the wireless tag

using another wireless transceiver, col 6, lines 22-25, unique identification, the other wireless

transceiver receives unique identification from wireless tag, reader tag is interpreted as being the

control center; col 11, lines 30-35, geographic location; col 2, lines 33-37, data communication

network among transceivers for forwarding).

Referring to **claim 2**, Twitchell discloses a system according to claim 1, in which each

communication device comprises: a) a short-range wireless transceiver for communicating with

one or more wireless tag(s) being in the vicinity of said communication device (col 6, lines 29-

34, Blue tooth; col 1, lines 64-66, short range); b) a memory for storing multiple unique data

transmissions from the same tag, and/or unique data transmissions from different tags (col 6,

lines 63-67, memory on wireless reader tag; col 9, lines 30-35, info stored in wireless reader tag

memory); c) circuitry for transmitting said data to the destination, over the communication

network (col 2, lines 33-37, data communication network among transceivers); and d) a control

circuitry for controlling the communication between said communication device and tags and the

transmission of said unique data over said communication network (col 11, lines 10-15, controlling wireless tags and wireless reader tags).

Referring to **claim 3**, Twitchell discloses a system according to claim 1, in which each communication device further comprises: a) location determining circuitry for determining the geographical location of said communication device (col 11, lines 30-35, geographic location); and b) circuitry for transmitting data representing said location to the destination (col 2, lines 33-37, data communication network among transceivers).

Referring to **claim 4**, Twitchell discloses a system according to claim 1, in which the tag comprises: a) a short-range wireless transceiver for communicating with one or more communication devices being in the vicinity of said tag (col 6, lines 29-34, Blue tooth; col 1, lines 64-66, short range); b) a memory for storing the unique data (col 6, lines 63-67, memory on wireless reader tag; col 9, lines 30-35, info stored in wireless reader tag memory); and c) a control circuitry for controlling the communication between said tag and said communication device (col 11, lines 10-15, controlling wireless tags and wireless reader tags).

Referring to **claim 5**, Twitchell discloses a system according to claim 1, wherein the communication network is a cellular or mobile or wireless network (col 11, lines 30-35, mobile phone network).

Referring to **claim 6**, Twitchell discloses a system according to claim 1, wherein the communication devices are selected from the group: mobile telephones; cellular telephones; wireless telephones; portable computers; PDAS; WAN-LAN gateways or APs (Access Points); WAN-PAN gateways or APs; LAN-PAN gateways or APs (col 6, lines 15-20, two-way wireless radio frequency data communication device).

Referring to **claim 7**, Twitchell discloses a system according to claim 1, wherein the communication between the tag and the communication device complies with a communication standards selected from the group: Bluetooth; IEEE 802.11, WiFi; WiMax; HomeRF (col 6, lines 29-34, Blue tooth).

Referring to **claim 8** Twitchell discloses a system according to claim 1, wherein the data representing the location of the communication device is determined either by the communication network or by the communication device or by a combination thereof (col 11, lines 30-35, geographic location).

Referring to **claim 9**, Twitchell discloses a system according to claims 1 or 8, wherein the data representing the location of the communication device or the data provided by the tag are affiliated into the control signals that are transmitted from said communication device over the communication network (col 11, lines 30-35, geographic location, transmitting data to server computer via mobile phone network).

Referring to **claim 11**, Twitchell discloses a system according to claim 1, wherein the communication between tags and communication devices is established using unlicensed frequency band (col 6, lines 29-34, Blue tooth, Bluetooth uses unlicensed frequency band).

Referring to **claim 12**, Twitchell discloses a system according to claim 1, wherein the unique data is related to the tag's ID and/or to the time at which said unique data is transmitted (col 6, lines 21-25, wireless tag, unique identification; col 9, lines 32-37, time sensitive information).

Referring to **claim 13**, Twitchell discloses a system according to claim 12, wherein the time at which the unique data is transmitted to communication devices, is recorded by the communication devices (col 9, lines 32-37, time sensitive information).

Referring to **claim 15**, Twitchell discloses a system according to claim 1, wherein the control center interrogates the communication devices for the presence of tags in their vicinity, according to at least one of the following parameters: the tag ID; the time; the geographical region; the ID of communication devices (col 6, lines 1-4, reading wireless tag using wireless reader tag; col 6, lines 21-25, wireless tag, unique identification).

Referring to **claim 17**, Twitchell discloses a system according to claim 1, wherein the data representation of the location of tag(s) is converted from geographic coordinates to a corresponding physical address (col 11, lines 30-35, geographic location; col 9, lines 35-40, physical location).

Referring to **claim 18**, Twitchell discloses a system according to claim 1, wherein the initiation to start a tag location may come from a tag and/or a communication device and/or a control center, and/or an input to a tag and/or an input to a communication device and/or an input to a control center (col 6, lines 1-4, reading wireless tag using wireless reader tag).

Referring to **claim 19**, Twitchell discloses a system according to claim 1, wherein the communication between a tag and a communication device is enabled during specific periods of time and/or when a communication device and/or a tag are part of a predetermined sub group (col 6, lines 36-45, class designation).

Referring to **claim 20**, Twitchell discloses a system according to claim 1, wherein the location accuracy of the tag is refined by obtaining distance and/or direction information related

to the relative position between the tag and the communication device (col 9, lines 30-40, GPS is used to obtain location information, physical location between reader tag and target tag is hence obtained).

Referring to **claim 21**, Twitchell discloses a system according to claim 1, wherein the roaming object is selected from the following group: persons; animals; vehicles; goods; mailed/delivered items; weapons; ammunition (col 2, lines 45-54, person, vehicle).

Referring to **claim 22**, Twitchell discloses a system according to claim 1, wherein the location accuracy of the tag is refined by extrapolation, when the transmission of the unique data from the tag to the communication device and the determination of the location of the communication device are performed at different times (col 12, lines 60-65, updates according to location, i.e. location is updated).

Referring to **claim 23**, Twitchell discloses a system according to claim 1, wherein the control center is a communication device (col 6, lines 1-5, reading the wireless tag using another wireless transceiver, reader tag is interpreted as being the control center).

Referring to **claim 24**, Twitchell discloses a system according to claim 1, wherein tags and/or communication devices relay/retransmit data that arrives from other tags and/or communication devices (col 6, lines 1-5, reading the wireless tag using another wireless transceiver; col 2, lines 33-37, data communication network among transceivers).

Referring to **claim 25**, Twitchell discloses a wireless tag (col 6, lines 1-5, wireless tag), attached to a roaming object (col 2, lines 45-54, person, vehicle, etc that may be moving), for determining the geographical location of said roaming object (col 11, lines 30-35, geographic location), said tag being capable of communicating with one or more communication devices

being part of communication network (col 2, lines 33-37, data communication network among transceivers), said communication network being capable of obtaining the geographical location of said communication devices and transmitting data representing said geographical location to a destination, over said communication network (col 11, lines 30-35, geographic location, transmitting data to server computer via mobile phone network), and transmitting, through communication device(s) and over said communication network, a unique data to a destination (col 6, lines 22-25, unique identification), at which the geographical location of said tag is determined/displayed or forwarded, using said unique data and the location of the communication device, through which said unique data is transmitted, wherein at least one of said communication devices is mobile (col 6, lines 1-5, reading the wireless tag using another wireless transceiver, col 6, lines 22-25, unique identification, the other wireless transceiver receives unique identification from wireless tag, reader tag is interpreted as being the control center; col 2, lines 33-37, data communication network among transceivers for forwarding).

Referring to **claim 26**, Twitchell discloses a communication device being part of a communication network that comprises other communication devices (col 2, lines 33-37, data communication network among transceivers), network being capable of obtaining the geographical location of said communication devices and transmitting data representing said geographical location to a destination (col 11, lines 30-35, geographic location), over said communication network, said communication devices being capable of communicating with each other and with said communication device, for determining the geographical location of a roaming object, by determining the geographical location of a wireless tag, attached to said roaming object, said communication device being capable of communicating with said tag and

transmitting, over said communication network, a unique data that is received from said tag to a destination, at which the geographical location of said tag is determined/displayed or forwarded, using said unique data and the location of said communication device, wherein at least one of said, or said other communication devices is mobile (col 6, lines 1-5, reading the wireless tag using another wireless transceiver, col 6, lines 22-25, unique identification, the other wireless transceiver receives unique identification from wireless tag, reader tag is interpreted as being the control center; col 2, lines 33-37, data communication network among transceivers for forwarding).

Referring to **claim 27**, Twitchell discloses a method for determining the geographical location (col 11, lines 30-35, geographic location) of roaming objects (col 2, lines 45-54, person, vehicle, etc that may be moving), comprising: a) providing a communication network, consisting of at least a plurality of communication devices (col 2, lines 33-37, transceivers), each of which having wireless (col 6, lines 1-4, wireless transceiver) and/or wireline (col 11, lines 3-7, wired network) communication capability with other communication devices over said communication network, wherein at least one of said communication devices is mobile, and of establishing wireless communication with other wireless devices in the vicinity of said communication device (col 2, lines 33-37, data communication network among transceivers), said communication network being capable of obtaining the geographical location of said communication devices and transmitting data representing said geographical location to a destination (col 11, lines 30-35, geographic location, transmitting data to server computer via mobile phone network), over said communication network; b) attaching a wireless tag being a wireless device in which a unique data is stored, to each of said roaming objects (col 6, lines 1-5, wireless tag; col 6, lines 22-25,

unique identification); c) allowing said tag to communicate with one or more communication devices and to transmit said unique data to said destination through said communication device(s) and over said communication network (col 6, lines 1-5, reading the wireless tag using another wireless transceiver; col 2, lines 33-37, data communication network among transceivers); d) receiving said unique data from said tag in a control center being, or linked to, said destination; and e) determining/displaying or forwarding the geographical location of said tag using said unique data and the location of the communication device, through which said unique data is transmitted (col 6, lines 1-5, reading the wireless tag using another wireless transceiver, col 6, lines 22-25, unique identification, the other wireless transceiver receives unique identification from wireless tag, reader tag is interpreted as being the control center; col 11, lines 30-35, geographic location; col 2, lines 33-37, data communication network among transceivers for forwarding).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   Claim 14 rejected under 35 U.S.C. 103(a) as being unpatentable over by U.S. Patent No. 6934540 to Twitchell in view of U.S. Patent App. Pub. No. 2005/0058109 to Ekberg

Referring to **claim 14**, Twitchell discloses a system according to claim 1 (col 11, lines 30-35, geographic location). Twitchell does not disclose that whenever the communication device receives a new data signal and its corresponding memory is full, the oldest data stored in

said memory is overwritten by said new data. The examiner maintains that the concept that

whenever the communication device receives a new data signal and its corresponding memory is

full, the oldest data stored in said memory is overwritten by said new data was well known in the

art as taught by Ekberg.

In a similar field of endeavor, Ekberg shows overwriting the oldest record in the memory

with new information (page 2, paragraph 12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Twitchell to show that when the communication device receives a new data

signal and its corresponding memory is full, the oldest data stored in said memory is overwritten

by said new data, as taught by Ekberg, the motivation being proper memory utilization (Ekberg,

page 4, paragraph 29).

9.   Claim 16 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No.

6934540 to Twitchell in view of U.S. Patent App. Pub. No. 20030054756 to Tyson.

Referring to **claim 16**, Twitchell discloses a system according to claim 1 (col 11, lines

30-35, geographic location). Twitchell does not disclose that the utilization of communication

device for locating tags does not require the subscriber permission or wherein a subscriber that

owns or operates a communication device permits utilizing said communication device for

location tags. The examiner maintains that the concept that the utilization of communication

device for locating tags does not require the subscriber permission or wherein a subscriber that

owns or operates a communication device permits utilizing said communication device for

location tags was well known in the art as taught by Tyson.

In a similar field of endeavor, Tyson shows authorizing a particular unit to be the authorized user of the positioning system (page 4, paragraph 45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Twitchell to show the utilization of communication device for locating tags does not require the subscriber permission or wherein a subscriber that owns or operates a communication device permits utilizing said communication device for location tags, as taught by Tyson, the motivation being to avoid fraudulent use (Tyson, page 1, paragraph 7).

Conclusion

10.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patent is cited to further show the state of the art with respect to Location Tracking

U.S. Pat. App. Pub. No. 2004/0176032 to Kotola et al.

U.S. Pat. App. Pub. No. 2002/0098852 to Goren et al.

U.S. Pat. App. Pub. No. 2003/0210142 to Freathy et al.

11.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suhail Khan whose telephone number is (571) 272-7910. The examiner can normally be reached on M-F from 8 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold, can be reached at (571) 272-7905.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sk

CHARLES APPIAH
PRIMARY EXAMINER